

## FINAL EXAMINATION

*Using a soft lead (#2) pencil, record the best answer for each of the following questions on the attached computer answer sheet. There is only one correct answer for each question. When you have finished, prepare the answer sheet as directed and mail to the address provided. Your examination will be evaluated and the results returned to you as quickly as possible.*

1. Which of the following correctly identifies the four "routes of entry" for toxic substances into the body:
  - a. Irritation, injection, absorption, asphyxiation
  - b. Absorption, injection, ingestion, inhalation
  - c. Absorption, injection, insertion, inhalation
  - d. Injection, ingestion, integration, absorption
2. A person works every day with a toxic substance, but does not take protective measures. The individual will experience what type of exposure?
  - a. Acute
  - b. Chronic
  - c. Lethal
  - d. Carcinogenic
3. The body has very efficient internal defenses which can remove any quantity of an unwanted substance.
  - a. True
  - b. False
4. The tendency of chemicals to become more concentrated as they move up the food chain is known as:
  - a. Leachification
  - b. Biodegradation
  - c. Chemical breakdown
  - d. Biomagnification
5. An industry's smokestack is an example of what type of source?
  - a. Point
  - b. Area
6. You have just learned that a chemical you work with is a **mutagen**. What effect does this chemical have?
  - a. Increases the risk of cancer
  - b. Increases the risk of physical defects in a developing embryo
  - c. Causes a permanent change in the genetic material (DNA)
  - d. Irritates the lining of the throat
7. A toxic accident occurs in your neighborhood. Several adults, teenagers, and small children are present. Which group, if any, would be likely to be most severely affected?
  - a. All would be affected to the same degree
  - b. The small children would be most severely affected
  - c. The teenagers would be most severely affected
  - d. The adults would be most severely affected

8. The analysis of a situation to determine the level of risk inherent in that situation is called:
  - a. Risk assessment
  - b. Risk management
  - c. Risk search
  - d. Health effects assessment
9. A chemical that, in relatively small amounts, produces injury when it comes in contact with susceptible tissue is known as:
  - a. A radioactive material
  - b. An explosive
  - c. A flammable liquid
  - d. A poison
10. It is difficult and sometimes impossible to purify contaminated groundwater.
  - a. True
  - b. False
11. The Federal agency responsible for regulating interstate shipments of hazardous materials is:
  - a. FEMA
  - b. DOT
  - c. EPA
  - d. OSHA
12. The Federal law designed to regulate hazardous waste "from cradle to grave" is:
  - a. Resource Conservation and Recovery Act of 1976
  - b. Toxic Substances Control Act
  - c. Safe Drinking Water Act
  - d. Superfund
13. Under existing laws, States have broad authority to control how hazardous materials are stored, used, transported, and disposed of within their borders.
  - a. True
  - b. False
14. Under Title III, Local Emergency Planning Committees (LEPCs) are charged with the responsibility to:
  - a. Develop an emergency plan to respond to hazardous materials incidents
  - b. Regulate hazardous materials within State borders
  - c. Inspect local factories to ensure compliance with Federal legislation
  - d. Write local ordinances to promote emergency preparedness
15. Under what circumstances are judges are likely to take immediate action to halt pollution before a violation of the law has been proven in court?
  - a. Whenever there is cause to believe the environment might be harmed
  - b. Whenever environmental lobby groups are in agreement that the problem exists
  - c. When the polluting industry is large and can afford it
  - d. In extreme cases when the potential damage is clear and irreparable

16. The local role in reducing public risks from hazardous materials includes:
- a. Developing an emergency plan for hazardous materials incidents
  - b. Regulating hazardous materials transportation through local ordinances
  - c. Regulating safe disposal of hazardous waste
  - d. All of these
17. The Federal agency primarily responsible for protecting our environment from contamination by hazardous materials releases is:
- a. The Department of Transportation
  - b. The Federal Emergency Management Agency
  - c. The Department of Labor
  - d. The Environmental Protection Agency
18. Which Federal agency provides training, resource information, and technical and financial assistance to States to help them prepare for hazardous materials emergencies?
- a. The Department of Transportation
  - b. The Federal Emergency Management Agency
  - c. The Department of Labor
  - d. The Environmental Protection Agency
19. Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) grants citizens the right to obtain information on hazardous materials in their community.
- a. True
  - b. False
20. Which Federal law is intended to assure, so far as possible, safe working conditions?
- a. The Occupational Safety and Health Act
  - b. The Clean Air Act
  - c. The Toxic Substances Control Act
  - d. The Safe Drinking Water Act
21. The presence of hazardous materials can always be detected by the sense of smell.
- a. True
  - b. False
22. A Material Safety Data Sheet (MSDS) includes information on:
- a. Health effects and physical properties of a specific chemical
  - b. Laws governing the use of a specific chemical
  - c. The amount of a specific chemical that can be legally released
  - d. The cost of a specific chemical
23. In the NFPA 704M labelling system, a rating of 4 in any quadrant corresponds to:
- a. The lowest degree of hazard
  - b. A moderately low hazard
  - c. A moderately high hazard
  - d. The highest degree of hazard

## **Hazardous Materials: A Citizen's Orientation/Final Examination**

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24. Sensory clues to the possible presence of hazardous materials in water include:
- a. Dead fish
  - b. Unusual algae growth
  - c. White froth
  - d. All of these
25. By reading the placard on a tanker bearing hazardous materials, you can find out:
- a. The hazard class of the substance being carried
  - b. The amount of the substance being carried
  - c. The date the substance was shipped
  - d. The name of the carrier
26. The five phases of a hazardous material's life include production, transportation, storage, elimination, and disposal.
- a. True
  - b. False
27. Besides the LEPC, what local agencies may maintain specific information on industries in your community that use, store, or generate EHS-listed hazardous materials?
- a. The local police
  - b. The local fire department
  - c. Both a and b
  - d. Neither a nor b
28. If you encounter a suspicious substance, you should:
- a. Immediately dispose of it yourself
  - b. Notify the appropriate authority to remove it
29. The code OXY in the bottom white quadrant of a label conforming to NFPA 704M indicates that:
- a. The material can easily release oxygen to create or worsen a fire or explosion hazard
  - b. The material reacts with water
  - c. The material will explode on contact with air
  - d. The material is radioactive
30. The three basic approaches to cleaning contaminated soil include:
- a. Containment, off-site disposal, and treatment
  - b. Air stripping/aeration, activated carbon, and chemical precipitation
31. One benefit of a sound community plan to deal with a hazardous materials emergency is:
- a. Fewer resources are required to handle the incident
  - b. Role confusion among incident responders is minimized
  - c. The need for assistance from other jurisdictions is eliminated
  - d. The likelihood of an incident occurring is almost eliminated
32. A primary purpose of conducting a hazardous materials exercise is to find out:
- a. Which responders should receive raises
  - b. Whether planned procedures work
  - c. What type of incident is most likely to occur
  - d. What Federal and State resources could be made available for such an incident

33. If you are caught outdoors in the vicinity of a hazardous materials incident, you should try to stay:
- a. Upstream, uphill, and upwind
  - b. Downstream, downhill, and downwind
  - c. Close to the incident responders
34. In-place sheltering is never an appropriate option in an accident involving toxic chemicals.
- a. True
  - b. False
35. Decontamination is needed in order to:
- a. Remove contaminants from people and equipment
  - b. Treat injuries resulting from chemical emergencies
  - c. Identify chemicals involved in an accident
  - d. Estimate the amount of contaminant to which a person has been exposed
36. Once approved, an Emergency Operation Plan should never be revised, since this would create potential confusion in responding agencies.
- a. True
  - b. False
37. Formal mutual aid agreements with surrounding jurisdictions are seldom if ever needed, since everyone is ready to pitch in when an incident occurs.
- a. True
  - b. False
38. The key components of a complete local plan include a basic plan, supporting annexes, and implementing procedures. The supporting annexes typically include:
- a. Conceptual framework for emergency operations
  - b. Lists of people to alert under certain conditions
  - c. Information on how specific functions (such as evacuation) will be carried out for particular hazards
  - d. "How to" instructions for operating departments or individuals
39. What is the primary purpose of a Hazardous Materials Response Team?
- a. To develop a community plan for responding to hazardous materials incidents
  - b. To inspect buildings where hazardous chemicals are used or manufactured
  - c. To provide the skills, knowledge, and technical equipment needed to handle hazardous materials incidents
  - d. To assist in the disposal of household hazardous waste
40. A person whose skin is coated with a toxic substance hands his/her contaminated clothing to another individual. This likely will result in what is called:
- a. Cross-contamination
  - b. Ingestion
  - c. Risk
  - d. Reckless endangerment

41. The health effects that can result from asbestos exposure include:
- a. Lung disease and certain cancers
  - b. Heart disease
  - c. Mental illness
  - d. Paralysis
42. The primary hazard associated with most organic solvents is:
- a. Radioactivity
  - b. Explosiveness
  - c. Faulty containers
  - d. Toxic vapors
43. When treating a household incident involving exposure to a poison, your most reliable source of advice and expertise is:
- a. The local health department
  - b. The police
  - c. The Poison Control Center
  - d. The product's label
44. Standard approaches to waste disposal are generally inadequate and frequently inappropriate for household hazardous waste.
- a. True
  - b. False
45. Household chemical products should generally be stored in a \_\_\_\_\_.
- a. Warm place
  - b. Humid place
  - c. Cool, dry place
46. Which of the following warning labels indicates the **least** degree of hazard?
- a. Danger
  - b. Warning
  - c. Caution
47. Which of the following is most likely to occur when an acid such as toilet bowl cleaner is combined with a base such as a drain opener?
- a. The substances neutralize each other, and no harm results
  - b. The substances react, often violently
  - c. Radioactivity is released
  - d. The products solidify, and can be disposed of readily
48. If your water service pipe is grey, will not attract a magnet, cannot be easily gouged with a key, and has no sharp bend or elbow, it could be made of a metal that has undesirable health effects if ingested. That metal is:
- a. Lead
  - b. Copper
  - c. Iron
  - d. Aluminum

49. A good substitute for drain cleanser is:

- a. Two handfuls of salt followed by boiling water
- b. A mixture of salt and flour
- c. Vinegar, alcohol, and linseed oil
- d. Confectioners sugar and borax

50. Existing landfills are generally considered sufficient to serve as the sole means of disposing of the Nation's waste for the foreseeable future.

- a. True
- b. False

## FEDERAL EMERGENCY MANAGEMENT AGENCY

**ANSWER SHEET (Home Study Programs)**

**NOTE:** To mail completed answer sheet, fold where marked and staple or tape.

If name and/or address are incorrect, please write in the correct information on the right hand side below:



Corrected name and/or address

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| STREET NUMBER       |  |          | STREET NUMBER |       |          |
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**\*Enrollment Designator: 1- Individual 2- Group Enrollment**

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| PUBLICATION NO. | COURSE TITLE | ● ENROLLMENT DESIGNATOR | COURSE COMP. DEADLINE | GRADE | DATE MAILED |
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FEMA HOME STUDY PROGRAM  
Administrative Office—EMI  
16825 South Seton Avenue  
Emmitsburg, MD 21727

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PRIVACY ACT STATEMENT (Public Law 93 579)

1. **AUTHORITY:** The authority for collection of the information is 5 U.S.C. 301; 44 U.S.C. 3101; 50 U.S.C. 2253,2281 and E.O. 9397.
2. **PRINCIPAL PURPOSE(S):** This information is collected for the purpose of providing self-directed study courses to citizens who cannot attend regular classroom courses and certify applicants who successfully complete the courses.
3. **ROUTINE USES:** Information maybe provided to the FEMA Self-Directed Study Program Contractor to enter applicant into the self-directed study program and to release self-directed study materials to applicants and to forward certificates to applicants who successfully complete a course; to FEMA Computer Center in Olney, Maryland, to establish a printout including name, address, student number, numerical grade for each course unit, date of completion of each course unit, final grade and date of course completion for submission to the contractor and to FEMA Training and Education; to FEMA Training and Education to respond to student inquiries relating to completion dates, requests for military reserve credits and requests for certificates of completion that were awarded but did not arrive for the student; to FEMA Regional Offices to measure training progress in the region; to State Emergency Management Offices to schedule more advanced training for students who have completed basic emergency management instruction through self-directed study courses. In some cases, information contained in the self-directed study course program is used to update individual student records maintained by the FEMA Self-Directed Study Program.
4. **MANDATORY OR VOLUNTARY DISCLOSURE AND EFFECT ON INDIVIDUAL NOT PROVIDING INFORMATION:** The disclosure of this information is voluntary, however, omission of the name and address would result in our inability to forward you copies of the self-directed study course and certificates of completion of courses. Information Regarding Disclosure of Your Social Security Number Under Public Law 93-579 Section 7(b) - The collection of your social security number is authorized by E.O. 9397 of November 22, 1943. The disclosure of your social security number is voluntary. You may take the self-directed study courses even if you do not provide the social security number; however, failure to provide such information may result in limited service which we will be able to provide to you regarding successful completion of courses and certifications.